

**PATENT APPLICATION**

**RESPONSE UNDER 37 CFR §1.116  
EXPEDITED PROCEDURE  
TECHNOLOGY CENTER ART UNIT 2834**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yasuji TAKETSUNA et al.

Group Art Unit: 2834

Application No.: 10/522,109

Examiner: E. PRESTON

Filed: January 24, 2005

Docket No.: 122487

For: MOTOR FOR VEHICLE

**REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the December 27, 2006 Office Action, the period for reply being extended by the attached Petition for Extension of Time, reconsideration of the application is respectfully requested in light of the following remarks.

Claims 1, 3-8 and 11-14 are pending in this application. The Office Action, on page 2, rejects claims 1, 3 and 4 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 1,448,700 to Seidner. The Office Action, on pages 3-5, varyingly rejects claims 5-8 and 11-14 under 35 U.S.C. §103(a) as being unpatentable over Seidner in view of one or more of U.S. Patent No. 5,770,899 to Hayashi and/or U.S. Patent Application Publication No. US 2002/00145353 to Kimura et al. (hereinafter "Kimura ").

These rejections of the pending claims essentially repeat rejections that were set forth in an Office Action dated July 10, 2006. In response to that Office Action, Applicants specifically

amended independent claim 1 to clarify the features recited in that claim. The clarifying amendments to at least independent claim 1 clearly distinguished the subject matter recited in that claim over the applied references, including an even broad application of what Seidner can reasonably be considered to teach, or to have suggested, with regard to the subject matter of the pending claims. These rejections are again respectfully traversed.

Claim 1 recites, among other features, a stator core having a plurality of slots disposed in a direction of said rotation shaft in a manner with an opening facing a peripheral surface of said rotor; a stator coil wound substantially completely within said plurality of slots; a cooling passage formed in each of said plurality of slots such that said stator coil comes in contact with a cooling liquid said cooling passage being implemented by covering the opening facing the peripheral surface of the rotor of each of said plurality of slots with a sealing member.

Seidner teaches improvements in liquid-cooled machines (col. 1, lines 5 and 6). With reference to, for example, Fig. 1, and specifically elements number 13 of Seidner, this Office Action, as did the previous Office Action, continues to allege that Seidner can reasonably be considered to teach a stator core having a plurality of slots with all of the features positively recited in independent claim 1. The Office Action indicates that specifically elements 34, vice elements 18 as were alleged previously, can reasonably be considered to correspond to a stator coil wound inside said slot.

Applicants previously argued that, with reference, for example, to Fig. 8, to which the Office Action refers, longitudinal holes as shown in Fig. 8 are indicated as being filled with cooling liquid and not having a stator coil wound inside any particular slot. Regardless of Applicants' interpretation in this regard, however, Applicants voluntarily amended independent claim 1 to better clarify certain of the features recited in that claim.

Specifically, claim 1 recites, as indicated above, among other features, said cooling passage being implemented by covering the opening facing the peripheral surface of the rotor of each of said plurality of slots with a sealing member.

In reply to Applicants' October 4, 2006 Amendment, this Office Action, in the Response to Arguments section, on page 5, paraphrases the claim language and asserts that "in response to applicant's argument that Seidner does not teach a plurality of slots with a stator coil wound therein, said slots forming a cooling passage therein with an opening being covered with a sealing member, it is noted that as can be seen in Fig. 1 Seidner teaches stator coils that are housed in stator slots the slots being sealed by a tube (Fig. 1, number 3) for use as a cooling channel."

Seidner, at col. 2, lines 98-112, describes element 3, and its structural relationships, by stating "the usual side shields 1 and 2 of the stationary member, one on each side of the machine, are connected to a tube tightly fastened on the inner periphery of said shields and passing through the air gap between rotor and stator." The reference goes on to state "[a] second tube 4 within the former [tube 3] is fitted as a mantel over the rotor, forming with disks 7 and 8 fitting over the shaft parts 5 and 6, a liquid type enclosure for the whole rotor." The reference then concludes "[i]n this way, the rotating as well as the stationary member each are formed as an individual tightly closed casing which is filled the liquid cooling medium ." (emphasis added).

In this manner, Seidner forms a tube in a tube. This tube-in-tube configuration of Seidner cannot reasonably be considered to teach, or even to have suggested, feature corresponding to a stator core having a plurality of slots disposed in a direction of said rotation shaft in a manner with an opening facing a peripheral surface of said rotor; and a cooling passage formed in each of said plurality of slots such that said stator coil comes in contact with

a cooling liquid, said cooling passage being implemented by covering the opening facing the peripheral surface of the rotor of each of said plurality of slots with a sealing member.

Specifically, Seidner fails to teach an opening facing a peripheral surface of said rotor based at least on the intervening structure of the "second tube 4 within the former) [is] fitted as a mantle over the rotor." Seidner also fails covering the opening facing the peripheral surface of the rotor of each of said plurality of slots with a sealing member, because regardless of how the slots are interpreted to be disposed in Seidner the specific combination of positively recited claimed features is not shown in this reference.

Applicants understand that the prosecution of this application to date has been very difficult. Applicants appreciate the efforts that Examiner Preston has taken in careful examination of this application. Applicants are concerned, however, that through a series of Office Actions, supplemented by personal interviews with Applicants' representative, the specifically recited claim features, as amended, are not being given full and proper construction. Applicants' concerns in this regard are particularly acute based on the fact that the Office Action does not even address the specific structural relationships regarding the positively recited features of the claims, as amended, as discussed above.

For at least the above reasons, Seidner cannot reasonably be considered to teach, or to have suggested, the combination of all of the features positively recited in independent claim 1. Further, claims 3 and 4 are also neither taught, nor would they have been suggested, by Seidner for at least the respective dependence of these claims directly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Finally, because neither of Hayashi or Kimura is applied in a manner that can reasonably be considered to overcome the above-identified shortfalls in the application of Seidner to the subject matter of the pending claims, any permissible combination of these references with Seidner cannot reasonably be considered to have suggested the combinations of all of the

features positively recited in claims 5-8 and 11-14 for at least the respective dependence of these claims directly or indirectly on an allowable independent claim 1, as well as for the separately patentable subject matter that each of these claims recites.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-8 and 11-14 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Daniel A. Tanner, III  
Registration No. 54,734

JAO:DAT/cfr

Attachment:  
Petition for One Month Extension of Time

Date: June 19, 2007

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

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